Salt Lake City Fire Weather District

I. WHAT'S NEW FOR 2004

1. Fire Weather Forecast Areas will be grouped according to dispatch center.
2. Spot forecasts will include 20-foot winds as standard. (Eye-level winds available upon request)
3. Fire Weather Forecast will include one extended forecast for the entire Salt Lake City Fire Weather District.
4. Coming soon! Addition of Day 3 Graphical Clearing Index forecast to the fire weather webpage. Also, look for additional experimental web based "point-and-click" forecast tools and planners to come online during the fire season.

II. TIME OF OPERATION

For the Salt Lake City Fire Weather Forecast Office:

5/1 through 10/31 0700-1600 MDT, 7 days a week
* Spot Forecasts and phone briefings as needed year round...24 hours a day

(The Salt Lake City Fire Weather Office will attempt to adhere to this schedule. However, some changes may occur when office staffing is reduced due to wildfire operations, sickness, etc.)

III. STAFFING AND COMMUNICATIONS

The Salt Lake City Fire Weather Office is located at the NWS Forecast Office. The mailing address is:

NWSFO Salt Lake City
Attn: Fire Weather Forecaster
2242 West North Temple
Salt Lake City, UT 84116

Fire Weather Telephone Numbers:

Voice (801) 524-5066 or (801) 524-4377
Fax (801) 524-4030

*** All products and the 2004 Operating Plan can be accessed through the Fire section of our internet homepage address:

http://www.wrh.noaa.gov/Saltlake/fire/

Personnel:
Chris Brenchley.....Fire Weather Program Leader/IMET
E:mail - Christopher.Brenchley@noaa.gov

Andrew Church.....IMET Trainee

Larry Dunn.....Meteorologist In Charge

IV. FIRE WEATHER SERVICES AND ISSUANCE TIMES

The following services are provided to Land Management Agencies in the state of Utah:

Emergency Fire Weather Briefings: During emergency situations when a spot forecast will take too long, you should call us for weather information. Ask to speak with the Fire Weather Forecaster on-duty. If a Fire Weather Forecaster is not in the office, ask to speak with the Lead Forecaster on-duty.

Routine Fire Weather Zone Forecasts: Disseminated via WIMS and our Internet Homepage twice a day from 5/1 through 10/31. Issuance times are 0800 MDT and 1500 MDT. Times vary according to the current weather situation/spot forecast workload though every effort is made to make the forecast available as soon as possible.

Routine Smoke Management Forecasts: Disseminated via WIMS and our Internet Homepage once a day from 5/1 through 10/31. Issuance times will usually be from 1100-1200 MDT depending on our spot forecast workload.

> **Note:** With the increased emphasis on prescribed burning these days...we continue to try and make improvements to this product. Consult our homepage for the latest updates and improvements to this product including a new internet-based clearing index planner.

Spot Forecasts: This forecast office operates 24 hours a day, seven days a week throughout the year. Meteorologists trained in fire weather forecasting will be on duty and available for Spot Forecasts outside of normal fire weather working hours. Spot Forecasts are made available on the web page to the requesting agency as soon as possible. Average turn around time is 30-60 minutes. This will vary depending on the number of Spot Forecast requests being handled at any given time. Spot requests for wildfires are always given the highest priority. Spot requests for prescribed burns are prioritized based on the order in which they are received. (The exception is when significant problems are occurring on a particular prescribed burn operation.)

> **Spot Forecast Request Procedures:**
> *Spot Forecasts via our Homepage:* Please utilize the web-based system on our homepage to request Spot Forecasts. In the event of internet problems or internet unavailability, Spots can still be requested the old-fashioned way (via fax using WS-FORM D-1). Any problems encountered with the web-based program should be addressed to Chris Brenchley (Lead FWX Forecaster) as soon as possible.

A Few Notes Regarding Spot Forecast Requests:

1. Provide **both** the legal and Lat/Lon location information
2. Call the forecast office to confirm that we got your Spot request
3. It is highly recommended that whenever possible you provide us with both early morning and late afternoon observations (representative of max/min humidity/temperature conditions and daily wind patterns). The better your observations, the better our forecasts.
4. Additionally, critical weather elements for prescribed burning operations should be noted in block 13 on your request. This way the forecaster will place extra emphasis on the weather elements that may keep you out of prescription.

Note: Due to staffing considerations in the Fire Weather Season, it is preferred that "non-emergency" spot forecast requests be submitted to the Fire Weather Forecaster on-duty during normal business hours (0700-1600 MDT). This includes spot forecast requests for "controlled" prescribed burns. This will ensure you receive a spot forecast from a forecaster who has been monitoring specific fire weather conditions throughout the state.

Spot Forecast Feedback: Verification is an essential part of improving this service to you. In most cases, we only know what happened at the site if we hear from you. You are encouraged to write comments and observations in the feedback section of the spot and send them back to us or include in remarks of subsequent spot requests. If the feedback is urgent and there is a large discrepancy between forecast and observations, directly call the Fire Weather Forecaster on-duty. Any significant problems that result on your operation due to weather conditions, should be called or e-mailed into Chris Brenchley, Fire Weather Program Leader.

Numerical NFDRS Forecasts: disseminated each day between 1515-1545 via WIMS. Also are available on our Internet Homepage site. The fire weather forecaster will issue a point forecast for the next day for all NFDRS observations that are received from the Fire Weather District that day.

Fire Weather Watches/Red Flag Warnings: Normally issued via WIMS with the Routine Forecast Package (0800 or 1500) and as a separate product. This product is also available on our Internet Homepage Site. Coordination calls are made as needed to Local Dispatch Centers to verify fuel conditions. FMOs, FBAs, and Burn Bosses should make every effort to call the Fire Weather Forecaster on-duty whenever there is any concern about critically dry fuels and severe fire behavior. The following are general guidelines that the Fire Weather Forecasters at this office use. These are just guidelines and the Fire Weather Forecaster on-duty may or may not issue Watches/Warnings based on other considerations:

Weather conditions/events that indicate severe fire weather conditions in the Salt Lake City Fire Weather District:

Sufficiently dry fuels must exist in combination with any of the following weather conditions for severe fire behavior and control problems to exist.

1. **Widely scattered or greater (≥15% coverage) Dry Lightning activity such that multiple wildfire starts are expected.** We consider a thunderstorm as "dry" if it is producing rainfall amounts of less than 0.10".

2. **The occurrence of widely scattered or greater (≥15% coverage) of lightning after an extremely dry period (a week or longer in mid summer).** In Utah, prolonged dry periods are common. Eventually the airmass over the state begins to become unstable during such times. High based thunderstorms will begin to develop in that unstable airmass producing lightning that will often cause multiple wildfire starts. Usually these thunderstorms will contain little or no rainfall. If the thunderstorms contain rainfall, which is more common during Utah's "monsoon season" generally from mid-July through mid-September, wildfire starts from "holdovers" are possible.

3. **Strong winds and low humidities - Wind gusts of 30 mph (25 mph in Eastern Utah) or greater for 3 hours or more combined with Relative Humidity of less than 15%.** In Utah these winds are common from the south-southwest on the western desert valleys before the passage of a cold front, and from the west in the eastern valleys behind a cold front passage.

4. **In the judgement of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, cold frontal passage or strong wind shift or Haines Index of 6 combined with a long period of record hot and dry conditions.**

Updated Forecasts (FWFs): Issued when necessary around midday (through the normal channels). The affected Interagency Fire Center Dispatch will either receive a fax of the updated forecast or a notification call. It will be used to address important changes to the morning fire weather forecast.

Experimental Gridded Forecast Products: Internet based fire weather forecast products will be tested on the Salt Lake NWS Fire Weather Homepage. These products should be considered experimental and feedback on their usefulness will be solicited from users. Any suggestions on how to improve these tools are very welcome; please email your suggestions to slc.comments@noaa.gov or you can call the Fire Weather Program Leader, Chris Brenchley.